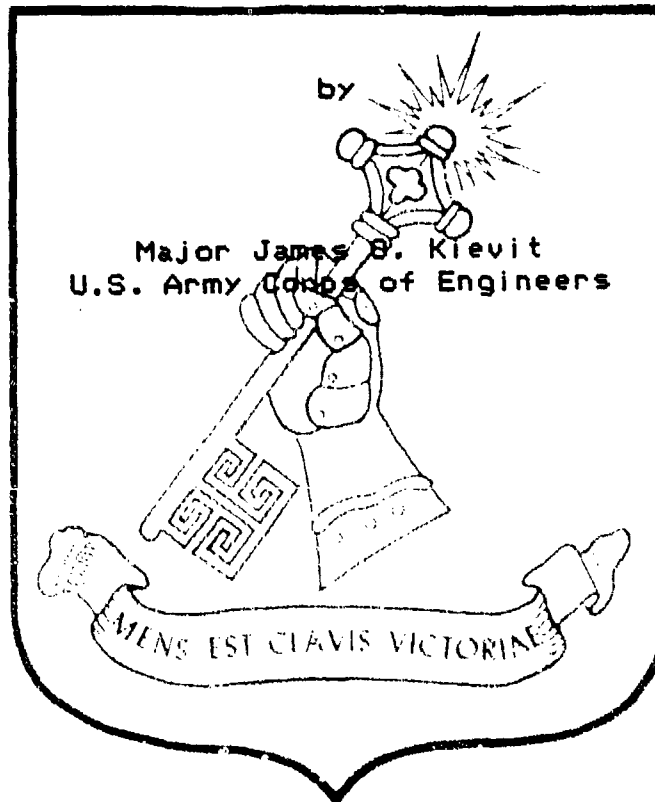


AD-A185 067

Operational Art
in the
1944
Ardennes Campaign

DTIC
ELECTE
S OCT 08 1987 D
CD D



School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

10 May 1987

Approved for public release, distribution is unlimited.

87-3047

013

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION School of Advanced Military Studies, USAC&GSC		6b. OFFICE SYMBOL (if applicable) ATZL-SWV	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) Port Leavenworth, Kansas 66027-6900			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.
			WORK UNIT ACCESSION NO.		
11. TITLE (Include Security Classification) Operational Art in the 1944 Ardennes Campaign (U)					
12. PERSONAL AUTHOR(S) Major James O. Kievit					
13a. TYPE OF REPORT monograph		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 87/05/10	
15. PAGE COUNT 47					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Operational maneuver Battle of the Bulge		
			Military History Military theory		
			Blitzkrieg Ardennes Campaign		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This monograph discusses the planning and execution of the 1944 Ardennes campaign, analyzes the reasons for Allied success and German failure, and based on that analysis examines the validity of certain theoretical concepts relating to the practice of the operational art. The monograph begins with a brief discussion of three major changes affecting the practice of the operational art between the Germans 1940 campaign through the Ardennes and their 1944 campaign: Blitzkrieg tactics no longer a surprise, Allied superiority in motorization, and Allied superiority in airpower. It then discusses the strategic setting and (cont)					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL Maj James O. Kievit			22b. TELEPHONE (Include Area Code) 913-684-2138		22c. OFFICE SYMBOL ATZL - SWV

Blk 19 (cont):

examines the operational plans of the two antagonists, followed by a description and analysis of the campaign itself focusing on what the key factors or elements shaping the operational battlefield were, and their relationship to certain theoretical concepts.

The monograph's conclusions:

First, it behooves any operational artist to remember that the actions of individual soldiers --planned or unplanned-- are important and can make or destroy an operation.

Second, that the validity of the concept of a "center of gravity" is questionable.

Third, that the concept of "culminating points" is valid, but of limited predictive utility.

Fourth, that while the defense is the stronger form of war the attacker will always strive to insure superiority at the decisive point, and then the agility of the defender in restoring the balance is crucial to the outcome of both tactical and operational battle.

Finally, that with regard to "means" and "ends" it is very difficult for operational artistry to overcome strategic deficiencies against anyone other than an inept opponent. Against a demoralized or inept force, surprise, possession of the initiative, and maneuver may provide a substitute for an overwhelming ability to physically destroy the enemy. Against a reasonably skilled and thoroughly determined force physical attrition through continuous heavy tactical engagement may be the only way to win.

School of Advanced Military Studies
Monograph Approval

Name of Student: Major James O. Kievit

Title of Monograph: Operational Art in the 1944 Ardennes Campaign.

Approved by:

Robert M. Epstein

Robert M. Epstein, Ph.D.

Monograph Director

Richard H. Sinnreich

Colonel Richard H. Sinnreich, M.A.

Director, School of
Advanced Military Studies

Philip J. Brookes

Philip J. Brookes, Ph.D.

Director, Graduate Degree
Programs

Accepted this 10th day of May 1980.

APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION UNLIMITED.



A

Accession For	
NTIS	CRA&I <input checked="checked" type="checkbox"/>
DTIC	TAB <input type="checkbox"/>
Unannounced <input type="checkbox"/>	
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

ABSTRACT

OPERATIONAL ART IN THE 1944 ARDENNES CAMPAIGN by Major James O. Kievit, USA, 33 pages.

△ This monograph discusses the planning and execution of the 1944 Ardennes campaign, analyzes the reasons for Allied success and German failure, and based on that analysis examines the validity of certain theoretical concepts relating to the practice of the operational art.

The monograph begins with a brief discussion of three major changes affecting the practice of the operational art between the Germans 1940 campaign through the Ardennes and their 1944 campaign: blitzkrieg tactics no longer a surprise, Allied superiority in motorization, and Allied superiority in airpower. It then discusses the strategic setting and examines the operational plans of the two antagonists, with emphasis on the German plan. This is followed by a description and analysis of the campaign itself in three phases: "The German Attack Seizes the Initiative," "The Initiative Shifts," and "The Allied Counter-Offensive." For each phase a determination is made what the key factors or elements shaping the operational battlefield were, and their relationship to certain "theoretical concepts."

The monograph's conclusions regarding the practice of the operational art and its associated military theory:

First, it behooves any operational artist to remember and understand the executioners and opponents of his grand plans, and never lose sight of the fact that the actions of individual soldiers --planned or unplanned-- are important and can make or destroy an operation.

Second, that the concept of a center of gravity of the enemy force, as the hub of all power and movement, is of utility only insofar as the operational artist uses it as a start point for a much more detailed analysis of the strengths and weaknesses of his opponent, and how to strike him.

Third, the concept of a culminating point for both offense and defense seems perfectly valid, and clearly recognizable in historical hindsight, but it is extremely difficult for an operational commander to make any definite predictive use of them.

Fourth, that the defense is indeed the stronger form of war, all other things being equal. Nevertheless, it must be recognized that the attacker will always strive to insure that at the point of decision things are never equal, and then the attacker will be the stronger. It is at this point that the agility of the defender becomes the critical issue, for the outcome of the operation will almost certainly hinge on how quickly the defender can react to restore that rough equality at the point of decision.

Finally, with regards to "means" vs "ends," that against anyone other than an inept opponent it is very difficult for operational artistry to overcome strategic deficiencies. Against a demoralized or inept force, surprise, possession of the initiative, and maneuver may provide a substitute for an overwhelming ability to physically destroy the enemy. Against a reasonably skilled and thoroughly determined force physical attrition through continuous heavy tactical engagement may be the only way to win.

Table of Contents

Introduction	1
Strategic Setting and Opposing Plans	4
The German Attack Seizes the Initiative	9
The Initiative Shifts	16
The Allied Counteroffensive	25
Conclusions	30
Maps	A-1
Bibliography	B-1

OPERATIONAL ART IN THE 1944 ARDENNES CAMPAIGN

INTRODUCTION

"All Hitler wants me to do is to cross a river, capture Brussels, and then go on and take Antwerp! And all this in the worst time of the year through the Ardennes where the snow is waist deep and there isn't room to deploy four tanks abreast let alone armored divisions! Where it doesn't get light until eight and it's dark again at four and with re-formed divisions made up chiefly of kids and sick old men -- and at Christmas!"

---Sepp Dietrich
Cdr, Sixth Pz Army (1)

At 0530 hours, 16 December 1944, the Wehrmacht initiated its second Ardennes campaign of World War II by attacking the American First Army's V and VIII Corps in their previously quiet sectors along the Belgium and Luxembourg borders. Popularly known as "The Battle of the Bulge", the campaign was fought during one of the harshest winters in West European history, and over some of the most rugged and compartmented terrain in Central Europe. The battle to blunt the German offensive lasted through December, and during the period 3 - 23 January 1945 an Allied counteroffensive eliminated the German penetration and set the stage for the final Allied campaign into Germany.

Any analysis of the Germans' unsuccessful 1944 campaign must first recognize three significant changes which had occurred since the Germans' brilliantly successful 1940 campaign:

First, blitzkrieg tactical doctrine was no longer a mystery to German opponents. The Allied armies of 1944 were familiar with the characteristics of German offensive actions: the violent reconnaissance to locate weak points to strike and strong points to bypass, the attempt to gain multiple penetrations on a narrow front, the commitment of armored forces into successful breaches to conduct deep attacks into rear areas, and the use of motorized infantry formations to hold and expand the gains by infiltration in order to protect the flanks until follow-up forces could arrive. Therefore while the exact time and place of a German offensive might catch a defender unawares, the method of tactical

execution would not surprise the defending tactical units, hastening their disorganization and psychological disintegration.

Second, the Allied armies were themselves practitioners of this new form of warfare and accordingly were organized for mobile operations; in fact their degree of motorization far exceeded that of the Germans. Even in 1940 the vast majority of the Wehrmacht had been non-motorized infantry supported by horse-drawn artillery and wagons, but the Germans ability to conduct rapid, violent, mobile combined-arms operations with the ten percent of their army that was motorized or mechanized vastly exceeded the capabilities of their French and British opponents. By the fall of 1944, however, the panzer and panzergrenadier divisions themselves were no longer fully motorized because German industry had been unable to keep pace with the tremendous losses of four years of war. The follow-up infantry still marched and moved its artillery with horses. American (and British) armored divisions, on the other hand, were completely self-propelled -- including all their artillery and attached combat support elements. And every American infantry division, while theoretically less than 100% motorized by table of organization and equipment (TOE), was in fact the equivalent to (or better than) a German panzergrenadier division in firepower and mobility.[2] The Allies' ability to translate this superiority in the quantity of motorized transport into a tactical and operational combat power advantage was, it shall be shown, one of the decisive factors in the outcome of the campaign.

Finally, air-ground cooperation, perhaps the key element of blitzkrieg, now favored the Allies. The Luftwaffe, which had reigned supreme in the skies and terrorized Allied forces on the ground in 1940, had suffered heavy attrition in four years of war. Moreover, it was overcommitted on the eastern front and in the air battles over Germany against the Allied combined bomber offensive. The western Allies, on the other hand, possessed the overwhelming power of the strategic bombing forces which had demonstrated their ability to influence ground operations during OVERLORD and COBRA, large numbers of transport aircraft which could provide either vertical envelopment or sustainment capability, and

those vast tactical air forces which had performed such important duties around the Falaise Pocket and during the pursuit across France. In 1944, therefore, German commanders had to design their operations to minimize the impact of air power; Allied commanders desired to maximize their ability to generate combat power from the sky. Their relative abilities to accomplish these opposing purposes significantly influenced the course of operations of the 1944 Ardennes campaign.

Having recognized these significant differences between 1940 and 1944, an analysis of the 1944 Ardennes campaign provides very useful insights into the practice of the operational art in modern war, and illuminates several of the concepts of military theory. The campaign clearly shows the importance of small unit, or even individual, actions in shaping the operational battlefield. And with regard to theoretical concepts of the operational art this analysis of the Ardennes campaign will show:

- 1) that the concept of the center of gravity, and especially the indirect approach to attacking it, seems to require additional examination;

- 2) that "culminating points" exist at both strategic and operational levels, but it is difficult to make any predictive use of them;

- 3) that the defense is the stronger form of war, all other things being equal, but that the attacker will always attempt to insure that all other things are rarely equal, and then it is the defender's agility which is important; and

- 4) that commanders, in balancing their means and ways with their ends, must overcome the friction and fog of war, and must remember that surprise, possession of the initiative, and maneuver --while significant at the operational as well as at the tactical level-- are not necessarily sufficient to insure success.

STRATEGIC SETTING AND OPPOSING PLANS

"I have made a momentous decision. I shall go over to the offensive, that is to say here, out of the Ardennes, with the objective, Antwerp!"

---Adolf Hitler [3]

After the Allied invasion of France in June 1944, the Germans had suffered a series of military setbacks in both east and west which eliminated their buffer states and threatened to bring ground combat to the soil of the Reich (See Map One). By mid-September Hitler clearly recognized that strategically Germany had reached her defensive culminating point, and that if he was to gain the time necessary for his "wonder weapons" to be deployed to reverse the strategic balance he must regain the initiative and knock at least one of the Allies out of the war temporarily. Although he recognized the Soviet Army as the center of gravity of the allied forces opposing him, the relative scarcity of German combat power, the size of the Eastern theater, and the perceived political strength of Stalin made inflicting a strategically significant defeat upon the Russian army an unlikely possibility. Accordingly, Hitler directed planning to begin, under conditions of the strictest secrecy, for the employment of the last of the German strategic reserves in an attack on the Western Front. During that late summer and early fall of 1944, German industry reached its greatest output of the war, and the products of this remarkable effort were stockpiled in western Germany for use in the planned offensive.

Meanwhile, due more to the increasing distance from their logistical bases than to losses caused by enemy resistance, the Western Allies had reached their initial offensive culminating point as their armies reached and crossed the northeastern borders of France. However, the perceived weakness of the Germans, combined with a desire to bring the war to an end before winter, encouraged a deliberate decision merely to modify their previous broad front advance and continue offensive operations rather than halt. The majority of available combat power was allocated to Field Marshal Montgomery's Twenty-first Army Group, in the north, for an immediate attempt to leap the Rhine. The failure of Operation

MARKET-GARDEN was followed by an operational pause to allow the opening of the port of Antwerp and a build-up of logistics, but Allied forces remained dangerously overextended.

In response to Hitler's request, the German General Staff had developed alternative courses of action to take advantage of the Allied situation (see Map Two). Hitler, however, rejected them all as providing only for tactical success. He had identified the operational center of gravity of the Western Alliance as the forces of the Twenty-first Army Group and U.S. Ninth Army massing in the north for a strike at the Ruhr, and while he accepted the fact that the Wehrmacht did not possess the power to strike these forces directly, he also believed it would be possible to strike them indirectly through the weakly held Ardennes, thus exposing the Allies' vulnerable logistics system. Hitler therefore ordered his commanders to develop a plan to split the western Allies in half by an attack through the Ardennes, capture the port of Antwerp, isolate the entire British Army in the north of Belgium, and thus force Great Britain into peace negotiations. The forces identified for this campaign included newly created units, units drawn from the strategic reserve, and units moved from other active theaters.

Field Marshal Gerd von Rundstedt was returned to active service and made OB WEST with overall responsibility for overseeing the offensive. Despite the extreme measures taken to provide manpower for the creation of new infantry formations, and the acceptance of strategic risk on the Italian and Russian fronts by committing all armored vehicle production to the creation of new armored brigades and the refitting of veteran panzer divisions which would participate in the attack, the German generals continued to question whether the means available would suffice to achieve the desired ends. Supported by Field Marshal Walter Model, Commander of Army Group B (which would actually conduct the attack), Rundstedt on several occasions attempted to convince Hitler to reduce the scope of the operation to a much shallower envelopment, but always without success. The final German plan, therefore, envisioned an attack along a narrow front utilizing massed armor to overrun the American defensive line, leap the Meuse River, and drive on through Belgium to Antwerp.

The major formations[4] designated for commitment were:

Army Group B - Field Marshal Walter Model

**Fifth Panzer Army - General Der Panzertruppen
Hasso von Manteuffel**

**Sixth Panzer Army - Oberstgruppenfuhrer der
Waffen-SS Sepp Dietrich**

**Seventh Army - General der Panzertruppen
Erich Brandenberger**

The Sixth Panzer Army, in the north, was designated as the main effort or schwerpunkt (see Map Three). Dietrich, with three corps controlling five infantry divisions, four SS panzer divisions, and more than one thousand pieces of artillery, was to punch through the American defenses, cross the Meuse River in the vicinity of Liege, and continue the drive toward Antwerp. His LXVII Corps was to attack on both sides of Monschau with two infantry divisions to get onto the high ground just beyond the frontier, link up with a the planned airborne assault, and occupy blocking positions to protect Sixth Army's northern flank. The I SS Panzer Corps was to make the main thrust to the Meuse with two SS panzer divisions, after its parachute and two Volksgrenadier divisions achieved penetrations of the American forward defenses in the vicinity of the twin villages of Krinkelt-Rocherath and in the northern reaches of the Losheim gap. The II SS Panzer Corps, with two more SS panzer divisions, would follow to provide both depth and flexibility for the main effort towards Antwerp.

The Fifth Panzer Army was to conduct a supporting attack in the center. Von Manteuffel, also with three corps but with only four infantry and three panzer divisions initially, was to strike through and south of St Vith, cross the Meuse near Namur, and then attack northwest towards Brussels to protect the Sixth Panzer Army's southern flank. The LXVI Corps, on the right, with two infantry divisions, was to envelop the Schnee Eifel and take St Vith. The LVIII Panzer Corps, in the center, with one infantry and one panzer division, was to take Houffalize and then cross the Meuse north of Namur. The XLVII Panzer

Corps, on the left, also with one infantry and one panzer division, was to seize Bastogne and then cross the Meuse south of Namur. The Panzer Lehr division and one separate armored brigade were held in army reserve to exploit success.

With only two corps headquarters, four infantry divisions, and no tanks, Seventh Army, in the south, was to attack on either side of Echternach to seize sufficient terrain to protect the southern flank of the panzer attack. General Brandenburger directed the LXXX Corps, with two divisions, to destroy the American defenses near Echternach and then occupy defensive positions of its own blocking American reinforcements from the south. The LXXXV Corps was to attempt to penetrate as far as the region south of Bastogne, there also to assume defensive positions facing south.

Finally, to assist in protecting the Sixth Panzer Army's right flank against attack by forces from the Allied center of gravity, it was planned for the infantry divisions of the Fifteenth Army, reinforced by a single panzer division and one panzergrenadier division, to attack in the vicinity of Aachen approximately forty-eight hours after the offensive in the Ardennes began in order to pin down American divisions and prevent them from reinforcing in the Ardennes.

By early December, after many delays, the German forces were finally concentrated in the Eifel Region between Cologne, Koblenz, and Trier. Aware that in many situations air power had proven to be the Allied tactical center of gravity, and recognizing that despite its best efforts the Luftwaffe would be unable to gain and maintain air superiority over the battlefield, the Germans waited for weather that would ground the Allied air forces.

The Allies had resumed offensive operations across the broad front in mid-November, but gains had been disappointing, and attrition heavy. Nevertheless, as the Germans prepared to strike in the Ardennes, the British Twenty-first Army Group and U.S. Ninth Army in the north were massing for a major blow against the Ruhr region and Patton's Third Army and Dever's Sixth Army Group were planning similarly for the south. In the center of the Allied line the American V Corps was preparing to seize the Roer Dams, but much of

Hodges' First Army was occupied in an economy of force role, using the quiet Ardennes region for the resting of bloodied veteran divisions and the seasoning of newly arrived formations. Each of the VIII Corps' three infantry divisions was responsible for almost twenty miles of front, and the corps' single armored division had to be split into two widely separated combat commands in order to provide a limited mobile reserve behind two of the defending divisions. The Allies had located the Sixth Panzer Army in its assembly area near Cologne, and had correctly identified it as the German center of gravity. However, because they did not believe the Germans' new Volksgrenadier divisions could be effective in the attack, because they believed that no vital objective was within reach of the limited German forces they expected to be available, because they knew Rundstedt to be a conservative commander, because they believed winter weather to make an offensive through rough terrain like the Ardennes infeasible, and because they failed to see through the tremendous German deception effort (defensive sounding code name, movement only at night, radio silence, last minute positioning under cover of masking artillery fire, etc), the Allies convinced themselves the Germans would not use Sixth Panzer Army or any other forces to conduct offensive action, but instead would save their reserves for defense against the Allied attack on the Ruhr. The Allies complacently believed that the initiative would remain theirs, even as the Germans were planning to seize it.[5]

THE GERMAN ATTACK SIEZES THE INITIATIVE
(16-20 December 1944)

"When men in foxholes refuse to admit overwhelming odds, advance through or past them may be inevitable, but it is neither easy nor swift."

--Charles B. MacDonald[6]

Because of the Allied failure correctly to assess German capabilities, the Wehrmacht's attack on 16 December caught the forward elements of the thinly spread U.S. corps completely by surprise. The Germans struck with apparently overwhelming strength everywhere, from Monschau through the Loshieim Gap to Echternach, and progress did seem inevitable. Nevertheless, the majority of the German main attack by Sixth Panzer Army rapidly bogged down against increasing resistance by the V Corps along the Elsenborn ridge, although one element (Kampfgruppe Peiper, 1st SS Pz Div) managed to bypass the Americans' refused right flank and strike deep into the Ambleve river valley. Far to the south, Brandenberger's Seventh Army had some success initially against elements of the VIII Corps' 28th and 4th Infantry Divisions, but by 19 December its LXXX Corps had reached its culmination point and was going over to the defensive. In the center, although Von Manteuffel was disappointed with results on the first day, the supporting effort by Fifth Panzer Army enjoyed the greatest success. Its attack into the VIII Corps eventually rolled up much of the 28th Infantry Division, and enveloped and then isolated the 106th Infantry Division on the Schnee Eifel. This success led Field Marshal Model to urge Hitler to change the point of main effort and commit the II SS Panzer Corps in support of Manteuffel's drive, but the Fuehrer refused to modify the operations plan so early in the campaign. In combination with the threat presented by Kampfgruppe Peiper, Fifth Panzer Army's drive also led General Eisenhower to make the decision, late on 17 December, to commit his only theater reserves: the 82nd and 101st Airborne Divisions. By 19 December Fifth Panzer Army's LXVI Corps had accepted the surrender of the 106th division and, reinforced by a separate armored brigade, was heavily engaged against U.S. elements defending St Vith; LVIII Panzer Corps was driving toward Houffalize and XLVII Panzer Corps toward Bastogne

(See Map Four). The Germans got to Houffalize, but the 101st Airborne Division narrowly won the race to Bastogne. The pocket formed by the 101st Airborne in Bastogne blocked Fifth Panzer Army's projected line of communications, as despite increasing American resistance and growing logistical difficulties the leading German elements continued to push for the Meuse on 20 December. But the hasty defense of the key road centers at St Vith and Bastogne had already bought time for the Allies to revamp their command and control structure, to redirect the American Third Army north into the southern flank of the German penetration, and to harden the defense of the northern shoulder along the Elsenborn ridge. Eisenhower had directed Bradley on 19 December to chop the American First and Ninth Armies to Montgomery, allowing for consolidated control of the northern sector. Montgomery began by positioning his reserve, XXX British Corps, to block any possible penetration beyond the Meuse. He then directed First Army to "tidy up" its lines, and then counterattack with the VII and XVIII Corps. Patton, his planned offensive to the Rhine temporarily cancelled, began moving Third Army north and strengthened the southern flank with his initial divisions.[7]

The key factors influencing the operational art during these early days of the operation were "friction," the impact of terrain, the inherent strength of the tactical defense, the "fog of war," and allied "agility."

"Friction" had its greatest impact on the German main effort, Sixth Panzer Army. First, the airborne assault which had been designed to assist in preventing interference by American reinforcements from the north was not able to be executed in the early morning hours of the 16th as planned. Only some 400 of the designated 1200 parachutists had arrived at the airfields by the time the planes were scheduled to take off, because their trucks had run out of gasoline enroute! The operation was therefore delayed for twenty-four hours, and when conducted suffered further "friction" and completely failed to achieve its goals. Second, instead of overwhelming the elements of V Corps at Monschau with an overpowering two division assault, Dietrich's LXVII Corps found one of its divisions

had been unable to extract itself from its defensive battle farther to the north, and its second division had three of its battalions unable to reach the line of departure in time. Heavy fighting still occurred throughout the day as the Germans tried to achieve their objectives. Small units of Americans, however, fighting outnumbered but from prepared positions with good fields of fire, were able to recover from their initial shock and repel the weaker-than-planned attack. Third, the I SS Panzer Corps' infantry forces found themselves fighting not only the 99th Infantry Division as they had expected, but also elements of the U.S. 2nd Infantry Division. This unit had just moved up behind the 99th in order to participate in V Corps' attack toward the Roer dams, and was destined to play a key role in the Ardennes battle for the next few days. Already on 16 December the combined resistance of V Corps' infantry forces had forced the Germans to commit the 12 SS Panzer Division to assist in attempting to achieve the penetration, rather than holding their panzers for exploitation. Finally, the one element of Dietrich's force which did begin the exploitation, Kampfgruppe Peiper, was itself the victim of considerable friction. Delayed by the resistance of a small maintenance detachment, it arrived late at Stavelot, where Peiper decided to wait until the next morning. By then, a small American force had arrived to delay Peiper's movement on to Trois Ponts, which allowed another American force just enough time to destroy the critical bridges there. Still moving to find a way deeper into the American rear Peiper was discovered and attacked by the only Allied aircraft to find a hole in the low ceiling on the 19th. This attack, while doing little actual damage to Peiper's force, delayed the Kampfgruppe just long enough for American engineers to blow the last bridge that Peiper might have used to move further west.

The negative impact of friction was not entirely on the German side. The isolation and eventual surrender of the 106th Infantry Division can be blamed, in part, upon the untimely interruption of a phone conversation just at the moment its commander was being authorized to withdraw it from the exposed Schnee Eifel position. However, perhaps the most important friction on the American side had a positive effect. Concerned about Kampfgruppe

Peiper, General Hodges (First Army Cdr) ordered the 82nd Airborne north to Werbomont and redirected the 101st Airborne to Bastogne, but the 101st failed to receive the order. Luckily, the acting commander of the 101st independently decided to visit VIII Corps HQ in Bastogne, where he learned of the order just in time to effect the desired movement; the 101st beat the XLVII Panzer Corps to Bastogne by a matter of hours.

The effects of friction were clearly significant, and were compounded by the impact of terrain. Movement off the roads was extremely difficult, and numerous rivers bisected the desired direction of advance. Tactically, the compartmented terrain of the Ardennes frequently prevented the Germans from bypassing resistance or massing against it, while operationally it channeled the German advance and permitted the creation of block points which helped shape the battle. By continuing to attack throughout the night of the 16th, Dietrich's forces had gradually forced the U.S. V Corps' right flank back. But instead of a clean operational breakthrough on the five roads toward the Meuse the German planners had considered operationally necessary, Sixth Army still had only one road and many of its divisions remained bogged down in tactical combat for the other routes. Both Fifth Panzer Army and Seventh Army, on the other hand, suffered delays from the congestion among combat support, combat service support, and follow-on combat units resulting from the inability to erect sufficient bridges across the Our river. This congestion prevented rapid exploitation of the confusion and disarray in the American defenses. And even when Fifth Panzer Army broke through the VIII Corps' initial defensive front, it still faced the bottlenecks of St Vith, Houffalize, and Bastogne.

Terrain also reinforced the inherent strength of the tactical defense. The advantage of being the defender, if the enemy did not possess an overwhelming combat power advantage, was demonstrated again and again during this early phase of the Ardennes campaign. Already mentioned was the success enjoyed by the defenders of Monschau against the weakened attack of LXVII Corps. On that same day, along "Skyline Drive," two American infantry battalions reinforced by two companies of medium tanks successfully repelled the

attack of four German regiments of the XLVII Panzer Corps. Similarly, the defense of the twin villages of Krinkelt-Rocherath, almost every action against Kampfgruppe Peiper, the fighting around St Vith, and the engagements of the elements of the 10th Armored Division on the roads to Bastogne provide further evidence that the defender enjoys numerous advantages over the attacker--which only vastly superior combat power or purposeful exploitation of the initiative can overcome.

If friction had its greatest impact upon the Germans, the "fog of war," while affecting both sides, blinded the Americans for much of the first four days. Most of the American commanders failed to recognize the extent of the German effort for several days following the beginning of the German offensive. General Gerow, commanding the V Corps, did not grant a request from the commander of the 2nd Infantry Division to stop his offensive action toward the Roer dams until 17 December-- because he initially believed the German offensive was merely a spoiling attack designed to accomplish just that purpose. General Middleton, commanding VIII Corps, failed to recognize the true extent of the situation along his front on 16 and 17 December, because he was receiving conflicting, misleading, and incorrect reports from his division commanders -- who were themselves unable to determine, from their headquarters well to the rear of the front lines, the actual state of affairs. Similarly General Bradley, at Twelfth Army Group Headquarters, was initially convinced the Germans could not be launching more than a limited spoiling attack. Only General Eisenhower, perhaps because of "Ultra", initially recognized the scope of the German effort and directed the immediate reinforcement of First Army with two armored divisions from the adjacent armies. This inability to "see" the battlefield seems to have been a major reason why American tactical commanders were reluctant to commit their reserves early in the battle; they recognized that their ability to influence the action was extremely limited once their reserves were engaged.

Nevertheless, it was in fact the agility of the Allied command at all levels which had the greatest impact on the shaping of the operational battlefield during the period 16-20

December. This agility was first demonstrated by the rapid identification of the Elsenborn ridge (by General Gerow), and St Vith, Houffalize, and Bastogne (by General Middleton) as operationally significant terrain and the commitment of forces to their tactical defense. The second demonstration of agility was the rapidity of movement of local American reserves once a decision was made to commit them. Tactical counterattacks and, later, the occupation of key blocking positions by elements of the VIII Corps' reserve 9th Armored Division played an early role in disrupting the tempo of the German effort. Even more important operationally was the rapid redeployment of the limited general reserves. Each of the seven divisions ordered to reinforce the beleaguered V and VIII Corps during the first four day period managed to move into the Ardennes region within 48 hours and occupy key defensive positions along planned German routes toward the Meuse. Thus on the 19th the V Corps was blocking Sixth Panzer Army's main effort near Elsenborn ridge not solely with the inexperienced 99th division the Germans had expected on the 16th, but also with three veteran infantry divisions [V Corps own 2nd, the 1st (formerly VII Corps), and the 30th (from Ninth Army)]. In addition V Corps had the veteran 9th Infantry Division, also from VII Corps, moving in farther north to strengthen the defenses near Monschau. And VIII Corps had received two armored divisions: Brandenberger's Seventh Army in the south faced, on 17 December, not merely the expected local reserves of the 28th and 4th Infantry Divisions, but also unexpectedly most of the 10th Armored Division formerly belonging to Third Army; Manteuffel's Fifth Panzer Army, in addition to the remainder of the 10th Armored along the roads to Bastogne, was hung up on the 7th Armored Division (like the 30th Infantry, all the way from Ninth Army) now defending St Vith. The movement of the Allied theater reserves, the 82nd and 101st Airborne Divisions, was even more spectacular -- all the way from their rest area near Rheims, France to engagement against the German spearheads near Werbomont and Bastogne, respectively, in less than 56 hours from issuance of the initial orders. Finally, although controversial, the 19 December decision to change the boundary between the Twelfth and Twenty-first Army Groups demonstrated an ability to decide and

act far exceeding German expectations. Hitler believed that Eisenhower would have to consult with the political leadership of the coalition prior to making any significant changes in Allied operational plans, and had therefore predicted that the Allies could probably not bring forces to bear in sufficient strength to either defend the Meuse river line or threaten the flanks of the German penetration before 28 December--1 January. Instead, on his own Eisenhower had cancelled all previously planned Allied offensive operations and, by his boundary shift, involved in the battle to defeat the German offensive any forces necessary from Montgomery's Twenty-first Army Group.

In combination then, "friction," the terrain, the inherent strength of the tactical defense, the "fog of war," and allied "agility" shaped the operational battle during its first four days. Their cumulative impact began the erosion of German combat power that would eventually lead to culmination of the attack. And perhaps most significantly, they reduced the possibility that the Germans would continue to retain the initiative that the achievement of tremendous operational and tactical surprise had initially provided.

THE INITIATIVE SHIFTS
(21-27 December 1944)

". . . the defensive form of war is not a simple shield, but a shield made up of well directed blows."

---Clausewitz [8]

The confusion of the days from 16 to 20 December began to dissipate as Montgomery and Bradley took control of their forces. At midnight on 20 December, on orders from Field Marshal Montgomery, the U.S. XIX Corps headquarters assumed control of VII Corps' area in the Huerthen Forest (including VII Corps' divisions) and VII Corps headquarters began to move rapidly back to Marche in Belgium with orders to organize a counterattack of the German penetration by the 75th and 84th Infantry and 2nd Armored Divisions. Far to the south, Patton's III Corps had also begun to move on the 20th, to begin Third Army's attack on the German southern shoulder. Meanwhile, Field Marshal Model had at last convinced Hitler to shift the main effort to the more successful Fifth Panzer Army, although he was forced to agree to Sixth Army continuing its attacks against the Elsenborn ridge (see Map Five).

Sixth Panzer Army's LXVII Corps and I SS Panzer Corps continued their unsuccessful efforts to widen the northern shoulder for the next five days, while II SS Panzer Corps shifted south to support the new main effort. By Christmas day Kampfgruppe Peiper of the 1st SS Panzer Division had been effectively annihilated by forces of the XVIII Airborne Corps, and the other divisions of Dietrich's army had lost so heavily that they were temporarily capable only of defending. In the south, Seventh Army was initially caught off balance by Third U.S. Army's III Corps' attack on 22 December, which the Germans had not expected until much later. On 24 December Patton's XII Corps completed its redeployment north and joined the attack. Reinforced on 23 December by the Feuhrer Grenadier Brigade and the 79th Volksgrenadier Division from the "Feuhrer Reserve", the LXXXV Corps made Patton's advance a bloody one, but was unable to prevent the opening of a corridor to Bastogne by III Corps on 26 December.

Bastogne had been encircled by the XLVII Panzer Corps on 21 December, after a direct assault had failed to overwhelm the town's defenders. That same day Fifth Panzer Army's LXVI Corps had finally forced the defenders of St Vith to withdraw west. Despite these apparent successes, the key to maintaining the momentum of the advance clearly lay with the panzer elements exploiting the gap between St Vith and Bastogne. These forces, however, were forced to spend much of both 21 and 22 December waiting to refuel. This delay provided just enough time for the U.S. VII Corps' 84th Infantry Division to arrive, throw a patchwork defense of units (including the division headquarters itself!) across the twelve mile Marche-Hotton front, and repel the first German attack on that line.

VII Corps, rather than assembling for a counterattack, thus initially had to be committed to the defense and eventually occupied a 65 km sector between the XVIII Airborne Corps in the northeast and the British XXX Corps along the Meuse river in the west. See-saw fighting occurred for several days as VII Corps' units continued to arrive, but the corps managed to hold its front against probes by at least three enemy divisions and against a major reconnaissance-in-force by elements of the Panzer Lehr Division directed personally by General Manteuffel. Meanwhile, Hitler released the 9th Panzer Division and 15th Panzergrenadier Division to Manteuffel in order to reinforce Fifth Panzer Army, and these divisions began to move into the bulge. On Sunday, 24 December, as the Germans were continuing to put heavy pressure on VII Corps in an attempt either to break through or outflank it to the west, the II SS Panzer Corps achieved a brief breakthrough near Manhay in the XVIII Airborne Corps sector. Both Twenty-first Army Group and First Army became concerned whether a continuous front could be maintained and temporarily abandoned all idea of offensive action. General Collins (VII Corps commander), however, encouraged by his division commanders, continued to conduct an aggressive defense and committed his divisions to limited objective attacks with the object of preventing the Germans from massing their strength. On Christmas Day, as German pressure continued, VII Corps was authorized by First Army to fall back to shorten the Allied line if necessary. General

Collins, convinced the Germans could not sustain their effort logistically in the face of allied air and ground superiority, felt that such an action would abandon the initiative to the enemy and merely open further opportunities for German forces to maneuver. He instead directed VII Corps elements to continue their aggressive defense and ordered the 2nd Armored Division to begin a major spoiling attack, which effectively destroyed the XLVII Panzer Corps' 2nd Panzer Division as a fighting unit.

The 26th of December, the same day Patton's Third Army relief force broke through to Bastogne, proved General Collins' confidence was justified. Although some enemy attacks continued, the Allied line was able to hold along its entire length. Fifth Panzer Army, unable to generate sufficient combat power at the point of the salient, was admitting culmination and beginning to go over to the defensive. Hitler, however, ordered Bastogne be captured and the offensive continued.

On Wednesday, 27 December, the divisions in contact continued their defensive battle against a much less aggressive German force. General Collins, convinced that VII Corps sector was stabilized, immediately proposed plans for First Army to assume the offensive and join with Third Army in eliminating the German salient. Although neither Field Marshal Montgomery nor Adolph Hitler would fully recognize the fact for a few more days, each of the German armies had reached its culminating point and the Wehrmacht had lost the initiative.[9]

Although friction, terrain, and the fog of war played a part in this phase of the battle, the key operational factors in bringing the German offensive to its culminating point were the ability of the Allies to make use of their "center of gravity," the inability of the Germans to sustain theirs, and --once again-- American agility.

The Germans had been at least partially correct in their identification of airpower as the American center of gravity and much of their early progress might correctly be attributed to the weather which grounded Allied airpower throughout the Ardennes sector, or at least concealed its targets beneath the protective overcast. But the Germans were

only partially right, and the Americans effectively employed their true center of gravity to attrit the German forces and hasten the culmination of the offensive. The true American center of gravity was not airpower, but fire support in general. American units, whether companies or corps, relied upon overwhelming external fire support to make possible either maneuver or the destruction of the enemy. Airpower, it is true, had frequently fulfilled this requirement when available. But artillery, while initially more difficult to mass, could also serve -- and was truly "King of Battle" in the Ardennes. Thus, throughout the December defensive phase, the American ability rapidly to concentrate vast quantities of army, corps, and divisional artillery consistently destroyed numerically superior German tank and infantry assaults. V Corps' massed artillery behind the Elsenborn ridge effectively precluded successful attack by Sixth Panzer Army after 20 December and interdicted attempts to bypass the American position. Similarly, massive employment of VII Corps' artillery played a key role in repelling the attacks of the 2nd and 116th Panzer Divisions and the 560th Volksgrenadier divisions along the Marche-Hotton line, and in III Corps' successful attack to relieve Bastogne. Massed American artillery fires concentrated combat power at the critical points in a timely manner, while German limitations in artillery force structure, ammunition resupply, and an inability to keep available artillery moved forward with the lead maneuver elements ensured that American artillery units could operate with impunity, free from the threat of counterbattery fires.

If the Germans were unable to prevent American employment of artillery fire support, they also could not guarantee Allied airpower would remain neutralized. The Luftwaffe could not gain even local air superiority, and the weather could not remain bad forever. Indeed, on 21 December, the weather cleared sufficiently for Allied tactical fighters to strike the spearheads of Fifth Panzer Army -- attriting them and delaying their rush through the gap in the American line. Even more significant was the delay and destruction inflicted upon the Germans' follow-on units, such as the II SS Panzer Corps and the 9th Panzer Division. Hitler had released the latter unit from "Fuehrer Reserve" on 23 December,

in order to provide further forces to sustain Fifth Panzer Army's drive for the Meuse, but it suffered such damage enroute that its contribution could not prevent culmination.

Acceptable weather between 23 and 31 December allowed the tactical air forces to fly an average of 1150 sorties a day, with a claim of over 200 tanks, 150 artillery pieces, and 2,000 trucks destroyed -- the equivalent strength of a whole panzer division! Even allowing for inflated claims, the German army could not sustain such losses for long and remain capable of offensive action.

Separately or in combination, then, the flexible and massive application of air and artillery fire support provided the American commanders at every level the strength necessary to affect positively the course of operations. Usually through a gradual attrition, less frequently through annihilation, the Americans were able to insure that continued advance by the Wehrmacht would be accompanied by a continuous decline in combat power, until eventually the German forces in contact would be unable to continue offensive action without increasing vulnerability to a "flashing sword of vengeance." Kampfgruppe Peiper and the 2nd Panzer Division provide excellent examples of the fate of forces which attempted to continue offensive action beyond their culminating point.

If the Germans had failed adequately to plan how to strike or at least disrupt the American center of gravity, they also were unable to make full use of their own. Because of severe limitations in terms of the availability of maintenance, transportation, and the resupply of fuel, the Germans could neither provide the logistics necessary to maintain the combat power of their committed mobile combat elements nor move reinforcing forces up rapidly enough to relieve them and sustain the momentum of the drive.

Inadequate maintenance was a continual source of concern for the German mobile forces in the Ardennes. First of all, their maintenance force structure was totally inadequate: for the 1700+ tanks and assault guns at the start of the Ardennes Campaign there were only six tank repair companies in all of Army Group B. Tank retrievers, desperately needed to haul damaged tanks back to the repair companies, were also in short

supply. Second, there was a shortage of spare parts, and some tank parts had to be cannibalized from new tanks at German depots. Finally, the large number and variety of non-German "booty" vehicles could not be adequately supported by the German maintenance system. When these vehicles broke down during the Ardennes Campaign, they were often abandoned in place and thus contributed to the German transportation problem and clogged the already over-crowded road network. In the end these maintenance inadequacies meant the panzer striking force was not able to maximize the use of reparable tanks and other vehicles, resulting in a loss of close combat power, fire support, and mobility.

The German Army also suffered severe transportation problems during the Ardennes Campaign. The German offensive was fed and armed by a road transport system unequal to the load forced upon it. While this was due largely to the failure of Sixth Army to capture the routes allocated to it, and to the Fifth Panzer Army's delay in gaining control of St. Vith and inability to seize Bastogne, other factors also impacted. There were too few trucks available and those that were available were worn out. Compounding the problem was the distance back to supply depots, with some supply convoys having to go all the way to Bonn for ammunition. It had not been possible to stock adequate amounts forward without compromising the deception effort, and also because the intensity of combat had not been accurately predicted. Finally, rated road capacities were reduced by at least one-third of previous German estimates by Allied bombing and the heavy snowfall.

Transportation problems further aggravated the biggest logistical problem for the Germans in the Ardennes: lack of fuel. The inability to supply adequate amounts of fuel forward affected the tank spearheads not only directly, but indirectly: the ability to bring up all other categories of supply, ammunition in particular, was severely degraded; a key member of the panzer division combined-arms team, its artillery, frequently found itself left far to the rear without its prime movers. Although German planners had attempted to provide sufficient fuel for the offensive, by this point in the war the Wehrmacht lacked an adequate combat service support force structure to support extended mobile operations.

Fuel, even when on hand in depots, was not where it was needed by maneuver units. POL products were not able to move at the same speed as the armor advance due to insufficient numbers and types of resupply assets, as well as due to the clogged road network. Rough terrain, bad weather, and the need to engage in continuous combat practically doubled consumption, and the German estimates were inadequate to account for these factors. As early as 19 December, only three days after the start of the campaign and just as it was about to become the main effort, Fifth Panzer Army reported a "badly strained fuel situation." On 21 December, the II SS Panzer Corps of Sixth Panzer Army was ordered to shift south to support the new main effort, but its 2nd SS Panzer Division couldn't begin to move for thirty six hours due to a lack of fuel. A few days later, at the point of the salient, when advance elements of the 2nd Panzer Division ran out of fuel while engaged with elements of the U.S. 2nd Armored Division, undamaged German tanks and vehicles had to be abandoned as the Germans attempted to disengage. During the same period Panzer Lehr Division elements in combat with VII Corps also reported some subordinate units running out of fuel.

This inability to either provide adequate logistics to committed mobile combat elements or to rapidly move reinforcing forces to relieve them had two effects. In the short term it reduced the immediate power of the German schwerpunkt, permitting weaker American elements to conduct successful defensive actions that shaped the course of the campaign. Over the longer term, it meant that the eventual attrition of the combat power of the German mobile forces to a point where effective offensive combat became impossible was inevitable.

Nevertheless, the losses inflicted by American fire support and the inability of the Germans to sustain their mobile forces might have been insufficient to prevent the offensive from reaching at least the intermediate objectives at the Meuse river were it not for the decisive influence, once again, of American agility. The unexpected, nearly simultaneous, arrival of VII Corps in the Meuse sector and III Corps on the southern shoulder was probably the most significant factor in the Allies ability to wrest the initiative from the Germans.

Third Army alone moved over 133,000 trucks and almost 42,000 tons of supplies a distance of some 100 miles in only five days. This rapid redeployment of American forces was made possible by American organization and command structure, excellent combat service support capabilities, and complete control of the air.

The fact that any American infantry division was similar to any other American infantry division, and that equipment and organization at battalion level was relatively identical even in different types of divisions, was especially significant because it simplified planning and execution of combat service support (CSS) at the operational level, and also allowed the rapid shifting of command relationships with relatively small loss of combat efficiency. As a result, one corps could take control of another corps' zone or divisions in a very short time and without extensive prior planning and coordination. Similarly, the frequent, successful, cross-attaching of different regiments between U.S. divisions was only possible because the commanders, while they may never have worked with those particular units before, had experience with other regiments and divisions whose organization and structure were identical.

In almost every case adequate CSS assets were available to U.S. units, and transportation was never the problem it was for the Germans. Except in the initial hours of the German offensive, American movements were seldom beset by road stoppages and traffic jams as was their foe. American military police swiftly and efficiently monitored actual vehicle movements, planned by the transportation corps, over roads kept open by American engineers. Even though the Germans made good use of the American radio traffic control net in their intelligence collection effort, this was more than offset by the speed and certainty with which American units moved.

Equally important was the Allied counter-air and air defense program, which prevented the Luftwaffe from interfering in any significant way with the movement of either First or Third Army's units. Few American units sighted any German aircraft during their movements, and those that did usually had little trouble protecting themselves with organic

and attached anti-aircraft elements. The rapid, road-bound, redeployment of more than thirteen divisions and all their supporting corps elements would probably have been impossible in any situation other than complete air superiority.

Instead, movement of almost the entire U.S. Third Army in the south and the First Army's VII Corps in the north provide classic illustrations of the rapid, mobile concentration of combat power. On 22-23 December these forces caught the Germans by surprise short of their operational objectives, and by 27 December had seized the initiative for the Americans in both north and south.

THE ALLIED COUNTER-OFFENSIVE
(28 Dec 44--28 Jan 45)

"A sudden powerful transition to the offensive --the flashing sword of vengeance --is the greatest moment for the defense."

--Clausewitz [10]

As previously noted, General Collins, commanding VII Corps, submitted plans for offensive action to eliminate the German salient to Field Marshal Montgomery on 27 December. Collins believed that the road complexes southeast of Elsenborn ridge were unsuited to sustaining large armored forces, and so he argued that it was not feasible to attempt the doctrinal solution of cutting the salient off at its base (which Patton had already suggested to Bradley). Instead, Collins argued for either a junction with Patton's Third Army in the vicinity of Bastogne, or for a meeting near St. Vith. In anticipation of beginning offensive action Collins began the replacement of his in-line armored divisions with infantry forces so that the armored elements could be refitted.

Field Marshal Montgomery, however, was not yet convinced that the Germans had lost their offensive capabilities. Accordingly, despite Bradley's support for Collins' idea, he refused to begin offensive operations. He did, however, order British XXX Corps to take over part of Collins' line to permit greater VII Corps concentration. By 30 December VII Corps had the 83rd and 84th Infantry divisions in solid defensive positions with only light contact, and its two armored divisions refitting in assembly areas. Finally convinced that the Germans had no further reserves to commit, Montgomery agreed that day to the Allies beginning offensive operations on 3 January 1945. The attack would be a "small solution," aimed at linking up with Third Army near Houffalize rather than at St Vith or at the base of the salient (see Map Six).

In the south, meanwhile, Patton had widened the corridor into Bastogne and was preparing an attack toward Houffalize by VIII and III Corps, to begin on 30 December. Fifth Panzer Army, obedient to Hitler's orders and unhindered by First Army's immobile forces,

had repositioned much of the remaining German armor for an attack on Bastogne, also planned to begin on 30 December. The result was a vicious meeting engagement that lasted several days, with neither side making significant territorial gains. Fifth Panzer Army then requested permission to withdraw the bulk its forces to defensible terrain, but was ordered by Hitler to make another attempt to seize Bastogne on January 4th. As Manteuffel expected, this attack had little success, and had to be ended that same day in order to shift 9th SS Panzer back north to aid Sixth Panzer Army's defense against the Allied counteroffensive.

At 0830 3 January 1945, First Army began offensive operations in the north with VII Corps as its main effort. Attacking without an artillery preparation so as to achieve surprise, VII Corps armored elements passed through the in-line infantry divisions and initially met only moderate resistance from Sixth Panzer Army's forces. By mid-day, however, with weather and terrain restricting routes of advance to slippery roads, the two attacking armored divisions were meeting heavy resistance in the form of artillery, anti-tank and tank fire, and minefields. The attack to the southeast made only slow progress on 4 January. The terrain and icy conditions of the roads made it almost impossible to deploy tank units in the attack. The Germans, making excellent use of the restricted terrain, based their defenses upon towns, roadblocks, and minefields. In the wooded regions they employed anti-tank guns and infantry armed with panzerfaust. The first perceptible progress was made on Saturday, 6 January, as, after heavy fighting, the 3rd Armored Division succeeded in cutting the LaRoche--Salmchateau road. This not only eliminated one of the two possible major routes of withdrawal for German forces still in the "Bulge", but also allowed the 3rd Armored Division to send a task force west down that road in an unsuccessful attempt to come in behind the 2nd SS Panzer Division (which was still holding fast against the 2nd Armored Division). On 7 January General Collins made the decision to commit his two infantry divisions to the attack in an attempt to increase its momentum.

Patton's VIII and III Corps, meanwhile, had resumed their attack northeast from Bastogne against heavy resistance on a similar pattern by Fifth Panzer Army. On 8 January, Hitler at last recognized that further offensive action in the Ardennes by the Wehrmacht was no longer feasible and authorized a limited withdrawal from the area west of the Ourthe river.

Because of their heavy casualties, VII Corps found it necessary to halt the armored divisions for maintenance and refitting on 10 and 11 January, but the infantry divisions continued their attacks with regiments on line to push the enemy back. On the 12th, Collins ordered all four divisions into action on a broad front and some gains were made, although resistance continued to be strong. That same day Hitler ordered the SS Panzer Corps to be withdrawn to a reserve position near St Vith, but insisted that the other German forces continue the defensive battle as far forward as possible. On the Eastern Front, the Allied strategic center of gravity -- the Red Army -- began its winter offensive.

A night attack (12-13 Jan) by the VII Corps' 83rd Infantry Division enabled reconnaissance elements to reach within four thousand yards of Houffalize on the 13th. That same day elements of the 3rd Armored Division succeeded in cutting the St Vith -- Houffalize road (the Germans main route for withdrawal). German resistance did not decline, however, and three more days of effort by both armies was required before the 2nd Armored Division linked up with the Third Army in the vicinity of Houffalize on 16 January.

From 17 to 26 January First and Third Armies, both now back under the command of Bradley's Twelfth Army Group, continued the attack to the east against gradually decreasing enemy resistance as the remaining Germans withdrew. By 28 January, the U.S. Army's official date for the end of the Ardennes campaign, all German delaying detachments west of the Our river had been eliminated, and the Allied armies were preparing for the final campaigns into Germany.[11]

One major issue which has occupied historians and military officers since the Ardennes battle has been the question of the location of the Allied counteroffensive -- whether it

would have been possible to strike deeper at the base of the salient, thus possibly trapping more German forces. An answer to that question, however, seems to depend entirely on another question --whether it would have been possible to logistically support such an effort over the roads available at the base of the salient. While perhaps worthy of further investigation, it seems unlikely the definitive answer to the latter question can be determined today (since there was considerable disagreement at the time among those actually present with the requisite knowledge of requirements and capacities). Besides this issue, two other factors of significance to the operational outcome of this phase of the campaign merit discussion. First, there is the question of the timing of the counteroffensive in relation to culmination of the German offensive efforts, and second, the superiority of the tactical defense seems to be demonstrated once again.

As noted in the previous section, the German offensive actually reached its culmination point between 23 and 26 December. The Germans, initially attempting to continue operations beyond that point, should have been vulnerable to counterattack. The Allied counteroffensive in the north, however, did not begin until 3 January. General Collins, who first recognized the German's inability to sustain their offensive action, was unable to convince his superior, Field Marshal Montgomery, that it was time to begin counterattacking immediately. Montgomery, less willing to take risk, waited to be certain the Germans were in fact exhausted. Unfortunately, this delay allowed Manteuffel to shift forces from in front of First Army to strike at Patton's Third Army forces near Bastogne. This, in turn, disrupted Patton's 30 December attack which otherwise might have cut the German routes of withdrawal much earlier. The Germans were then able, making use of their interior lines, to shift a portion of the forces back to assist against First Army's belated attack on the defenses Sixth Army had constructed during the delay.

Aided by the poor operational decision on when to attack, the ability of those hasty defenses to delay and attrit First Army's attack, and Fifth Panzer Army's similar success against Third Army, testifies once again to the tactical defense as the stronger form of war.

In this instance, the defender was further aided by the fact that First Army's (or perhaps more correctly VII Corps') concept of the operation was seriously flawed, and failed to make the most effective use of the available forces. The decision to use armored divisions to break through prepared German defenses in adverse weather over highly restricted terrain was unwise. The initial section of the VII Corps zone -- the ridges, valleys, and marshlands of the Plateau des Tailles-- was better suited to infantry battles. Only after an initial seven mile advance would a more suitable line of departure for the armored divisions have been achieved, since from this line the terrain to Houffalize and Bastogne is more open and favorable for armored elements. Thus, instead of a reasonable rate of advance providing the opportunity to trap larger elements of the German forces within the Bulge, the plan resulted in the attrition of the armored divisions. At the moment that exploitation might have become feasible, on 10-11 January, both 2nd and 3rd Armored Division had to be halted to regroup and any opportunity was lost. The American commanders appear to have seriously underestimated the level of enemy resistance and the critical limitations of terrain and weather, and to have forgotten those were the same conditions that had provided significant advantages to their defensive defeat of the German attack only a week earlier. Only the availability of overwhelming combat power in the form of artillery, the ability to move fresh or refreshed forces forward rapidly into the attack, and tremendous logistical sustainment prevented the American counter-offensive from culminating before the "bulge" had been eliminated. As it was, despite the destruction of most of the German mobile reserves, an operational pause was necessary before the Allied campaign to the Rhine could commence.

CONCLUSIONS

"The victory in the Ardennes belonged to the American soldier, for he provided time to enable his commanders -- for all their intelligence failure -- to bring their mobility and their airpower into play. . . . Surprised, stunned, unbelieving, incredulous, not understanding what was hitting him, he nevertheless held fast until his commanders ordered withdrawal or until he was overwhelmed."

--Charles B. MacDonald [12]

The Ardennes Campaign began as a German attempt to fight outnumbered and win, to transform a potential capability for operational success into a strategic victory over the overwhelming host. Despite surprise, despite initially achieving an overwhelmingly favorable force ratio in the chosen area of operations, and despite a deep attack aimed at defeating the enemy's main forces through maneuver, the Germans lost. The Germans in this campaign counted on psychologically unhooking their enemy, on achieving a victory of quality --both material and doctrinal-- over quantity, and they believed their opponents' chain of command, overcentralized and inflexible, would be unable to react fast enough to interfere with the German effort. But the Germans failed.

The following conclusions regarding the practice of the operational art and its associated military theory seem to be reasonably supportable from the analysis of this failed campaign:

First, a great deal of credit for the German failure must, indeed, be given to the individual American fighting men who courageously and tenaciously fought without necessarily understanding the bigger picture, whose cumulative individual actions resulted in tactical outcomes which for the most part favorably shaped the operational battlefield. Similarly, of course, the Germans were only able to undertake the operation, and to come as close to success as they did, because of the bravery and aggressiveness of their individual soldiers. Therefore, it behooves any operational artist to remember and understand the executioners and opponents of his grand plans, and never lose sight of the fact that the

actions of individual soldiers --planned or unplanned-- are important and can make or destroy an operation.

Second, the concept of a center of gravity of the enemy force, as the hub of all power and movement, is of utility only insofar as the operational artist uses it as a start point for a much more detailed analysis of the strengths and weaknesses of his opponent, and how to strike him. Mere identification of this or that unit, force, or component of force as the enemy's center of gravity may not --probably will not-- suffice. The Americans correctly identified Sixth Panzer Army as the German center of gravity, but failed to make any clear cut plans how to deal with it. Taking an indirect approach to striking the enemy center of gravity, on the other hand, while appearing to promise great benefits, also appears to entail significant risk. The German offensive in itself was an indirect approach by striking the Western Allies rather than the Red Army; in retrospect it seems likely that the Soviet winter offensive beginning 12 January would have achieved significant operational success even if the panzers had reached the Meuse or beyond. Taking the indirect approach to the Western Allies' operational center of gravity meant that the German Army was attrited without inflicting significant damage on the Twenty-first Army Group -- might not the Germans have gained more politically and operationally by a direct attack on Montgomery's forces which at least traded attrition? And lacking the ability to strike directly the perceived American center of gravity (airpower), the Germans were forced to rely on the indirect approach (bad weather) --which turned out to be distinctly unreliable at the worst possible moments. Finally, it needs to be recognized that the perceived enemy center of gravity either may not be, or may be replaceable by an equally effective hub of power --as American artillery proved in the Ardennes. Or perhaps the "hub of all power" of the Allies in the Ardennes was not centralized at all, but was found in all those dispersed, but highly mobile, divisions scattered across the broad front. At any rate, from this campaign analysis the validity of the theoretical concept of a "center of gravity" seems open to question.

Third, the concept of a culminating point for both offense and defense seems perfectly valid, and clearly recognizable in historical hindsight, but it is extremely difficult for an operational commander to make any definite predictive use of them. The attacker definitely suffers a diminution of combat power as he advances, and eventually will reach a point where continued advance leads to vulnerability to an enemy counterstroke. This occurred with the Allies in September, and again in November, and with the German attack, and during the Allied counteroffensive. Culmination seems clearly to begin within tactical units and spread upward to the operational level (First 1st SS Panzer and 2nd Panzer Divisions, then Sixth and Fifth Armies). But the factors involved are so numerous, and so interrelated, that due to the fog of war even the commander of the force involved may fail to recognize having reached culmination; his opponent will have even greater difficulty recognizing it. In those circumstances where one does recognize it, it may still prove difficult to take advantage of, especially if one must convince a superior (Collins vs Montgomery) that one's sensing is correct.

Fourth, ample evidence in the Ardennes campaign seems to support the conclusion that the defense is indeed the stronger form of war, all other things being equal. Certainly weaker American units frequently defeated the plans of stronger German units on numerous occasions between 16 and 17 December, and roles were reversed between 3 and 23 January. Nevertheless, it must be recognized that the attacker will always strive to insure that at the point of decision things are never equal, and then the attacker will be the stronger. It is at this point that the agility of the defender becomes the critical issue, for the outcome of the operation will almost certainly hinge on how quickly the defender can react to restore that rough equality at the point of decision. The American operational defense was the stronger form in the Ardennes because American agility insured that no matter how the Germans used their initiative to gain temporary advantage at a given point, their advantage would be exactly that--temporary. During the Allied counteroffensive, however, the Germans were able to demonstrate similar agility only during the early period between 3-7

January. After that date, although the Allied attack was predictable enough to allow the Germans to maximize their combat power at threatened points, the Germans simply lacked the forces to restore equality in any event.

Finally, but perhaps most importantly, the Ardennes campaign permits the conclusion with regards to "means" vs "ends" that against anyone other than an inept opponent, it is very difficult for operational artistry to overcome strategic deficiencies.[13] The victor in the Ardennes campaign was the side with the less capable technology in terms of fielded weapons systems, but with the greater numbers. The victor was the side with the greater logistical capability in terms of resupply, maintenance, and transportation. He had the higher tail to tooth ratio. The victor in the Ardennes campaign was the side with the overwhelming advantage in artillery, airpower, and other combat support assets. He was not the tactical equal of his foe, in fact his offensive tactics were considered by his enemy to be somewhat pedestrian, but he overwhelmed his opponent with mass and firepower. The loser in the Ardennes campaign was the side which attempted to offset his theater-wide deficiencies in force structure with surprise, seizure of the initiative, and maneuver.

Surprise and the initiative are combat multipliers, but will not necessarily substitute for the possession of sufficient combat power. The German attack gained almost universal surprise on December 16th, but success was gained only where adequate combat power was available relative to the strength of the defending force. A corollary to this thesis is that good intelligence is far more important to the weaker force. American intelligence analysis was an abysmal failure, not only prior to December 16, but through much of the Ardennes campaign. Nevertheless, American operational level commanders were hurt far less by this failure than were German commanders by their failures to discover the 2nd Infantry Division or to accurately predict the speed of Allied reaction. American commanders possessed and could employ sufficient forces to rectify their error, the Germans simply did not and could not. Surprise and the initiative also do not, of themselves, provide the commander with any

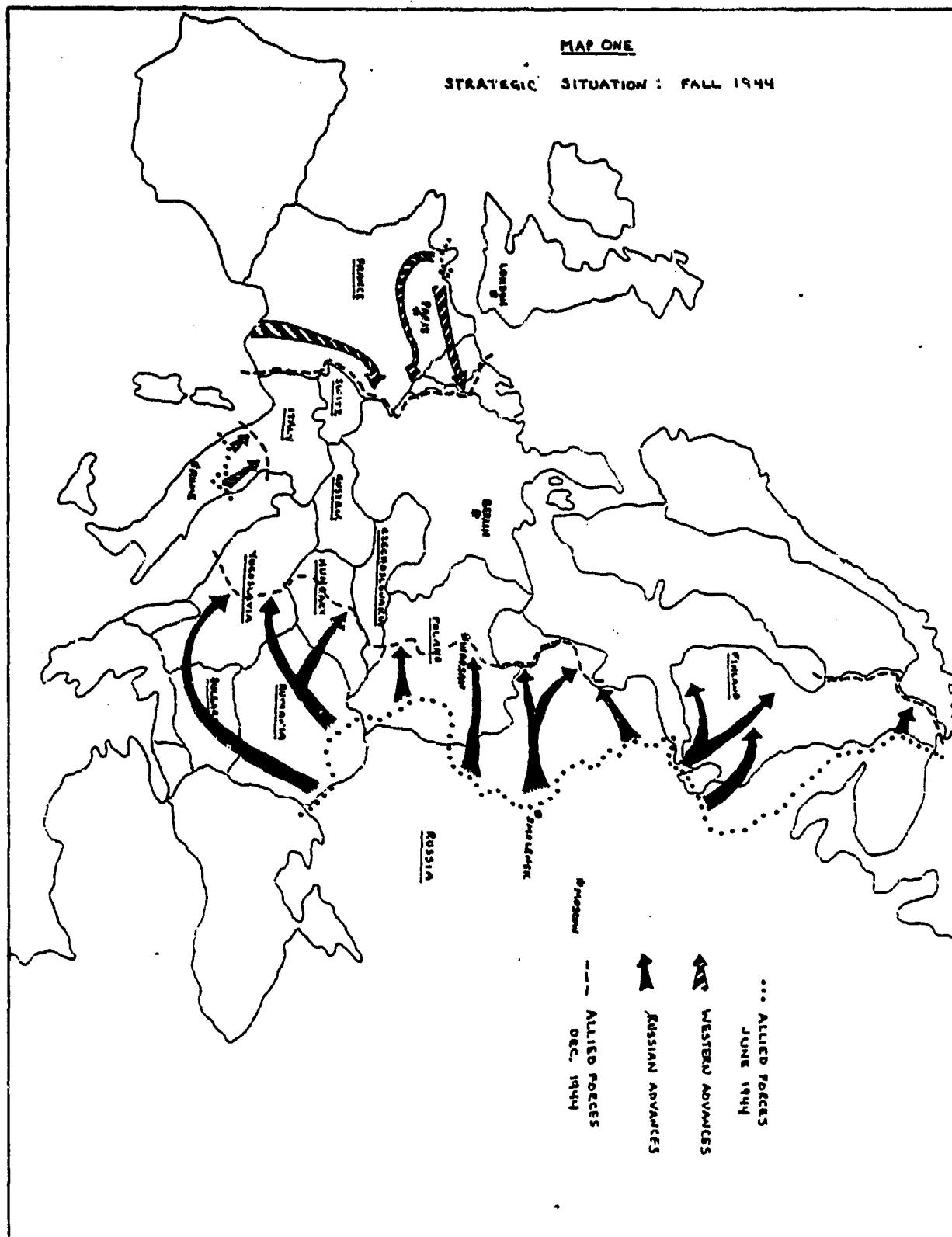
capability to deal with the impact of friction on the battlefield. The presence of a significant quantity of additional combat power does.

Similarly, the movement of forces to place the enemy at a disadvantage is also a combat multiplier, but can prove insufficient if those forces lack the requisite physical power to impose their will once they arrive. While psychological defeat of an opponent is possible, as the surrender of much the 106th Division on the Schnee Eifel seems to indicate, nevertheless it is rarely easy. Therefore it is best to be able to plan on physically eliminating resistance wherever and whenever necessary to accomplish the overall purpose. Many American units, of varying sizes, were maneuvered during the defensive portion of this campaign only in the sense of having been positioned on or astride key routes of the German advance. Yet these units, refusing to be significantly disconcerted by the maneuver of German forces to their flanks and rear, held their ground until forcibly removed by the application of superior combat power. St Vith provides an example where the Germans were eventually able to mass sufficient combat power to accomplish their purpose, Bastogne an excellent example where they could not.

Against a demoralized or inept force, surprise, possession of the initiative, and maneuver may provide a substitute for an overwhelming ability to physically destroy the enemy. Against a reasonably skilled and thoroughly determined force, which the American army in Europe was by December 1944, physical attrition through continuous heavy tactical engagement may be the only way to win. In such a war of attrition, however, the side with the better strategic preparation will probably triumph. This was the case in the Ardennes in 1944.

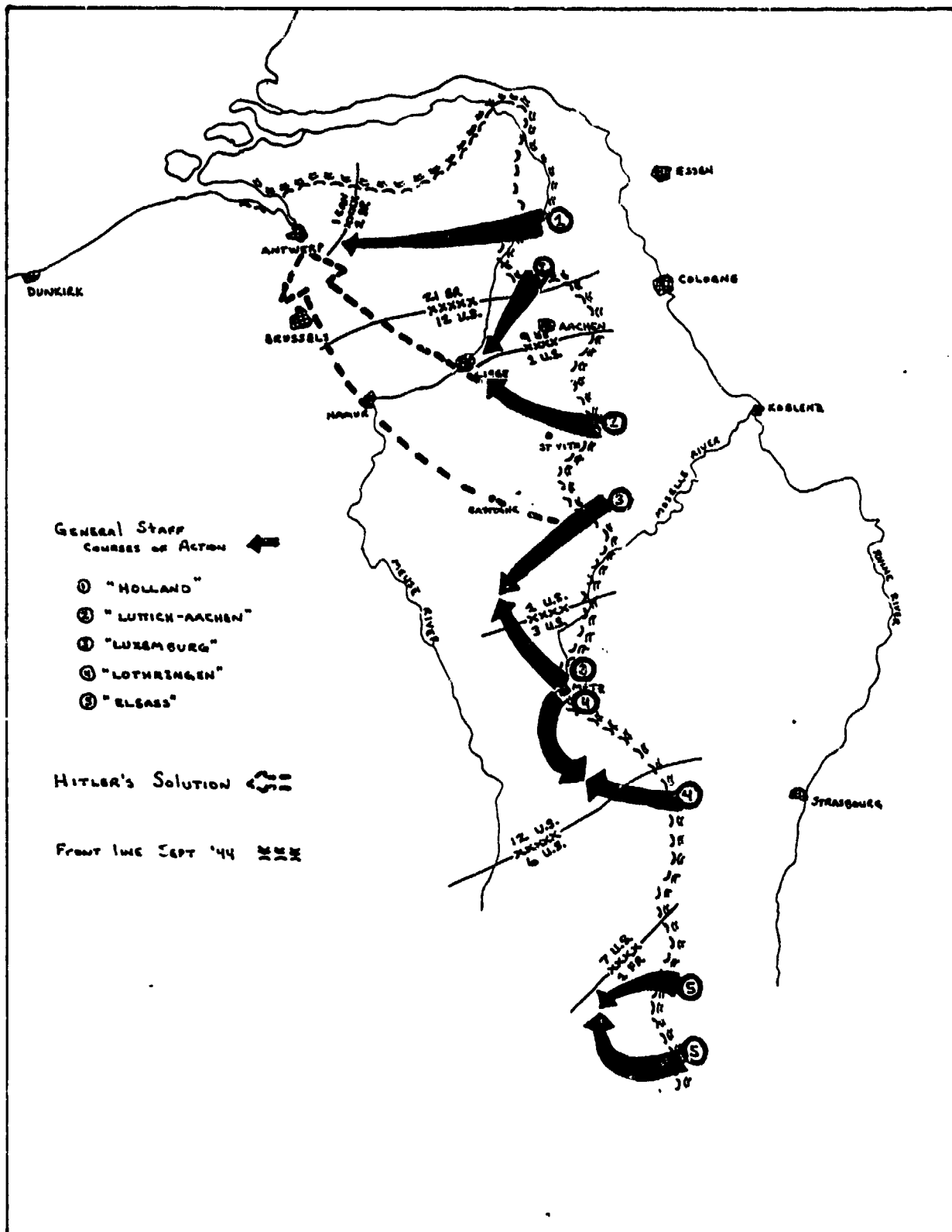
ENDNOTES

- [1] Elstob, Peter. Hitler's Last Offensive, p. 56.
- [2] When normal/habitual corps attachments of tanks, tank destroyers, and transport are included.
- [3] Quoted in Charles B. MacDonald, The Battle of the Bulge, p. 11.
- [4] Order of Battle information from MacDonald, The Battle of the Bulge, pgs 644-655; Merriam, Dark December, pg 236; and Detwiler, World War II German Military Studies, Vol 10, MS# A862, pgs 270-280.
- [5] For in depth discussions of the German and Allied operations and planning during the September-December time frame see: MacDonald, pgs 1-80; Merriam, pgs 1-98; and Detwiler, MS# A862.
- [6] MacDonald, pg 194.
- [7] For more detailed discussion of the events 16-20 December see: MacDonald, The Battle of the Bulge, pgs 101-391; Merriam, pgs 103-158; Weigley, pgs 445-496.
- [8] Clausewitz, On War, pg 357.
- [9] For more detailed discussion of the events 21-27 December see: MacDonald, pgs 391-584; Merriam, pgs 136-189; Weigley, pgs 491-537.
- [10] Clausewitz, On War, pg 370.
- [11] For more detailed discussion of the events 28 December - 28 January see: MacDonald, pgs 587-617; Merriam, pgs 190-209; Weigley, pgs 538-574. A slightly biased opinion is that the best detailed coverage of VII Corps' attack is found in "Analysis of the VII (US) Corps campaign in the Ardennes Region 21 December 1944 to 23 January 1945," an unpublished 1986 staff battle analysis done by Staff Group 22B (of which this author was a member).
- [12] MacDonald, pgs 618-619.
- [13] In fairness to the German operational commanders, it must be stated that they recognized this fact --which was the reason for their initial "small solution" proposals. Hitler, who was probably most responsible for Germany's poor strategic situation, insisted on attempting the more extensive operation.



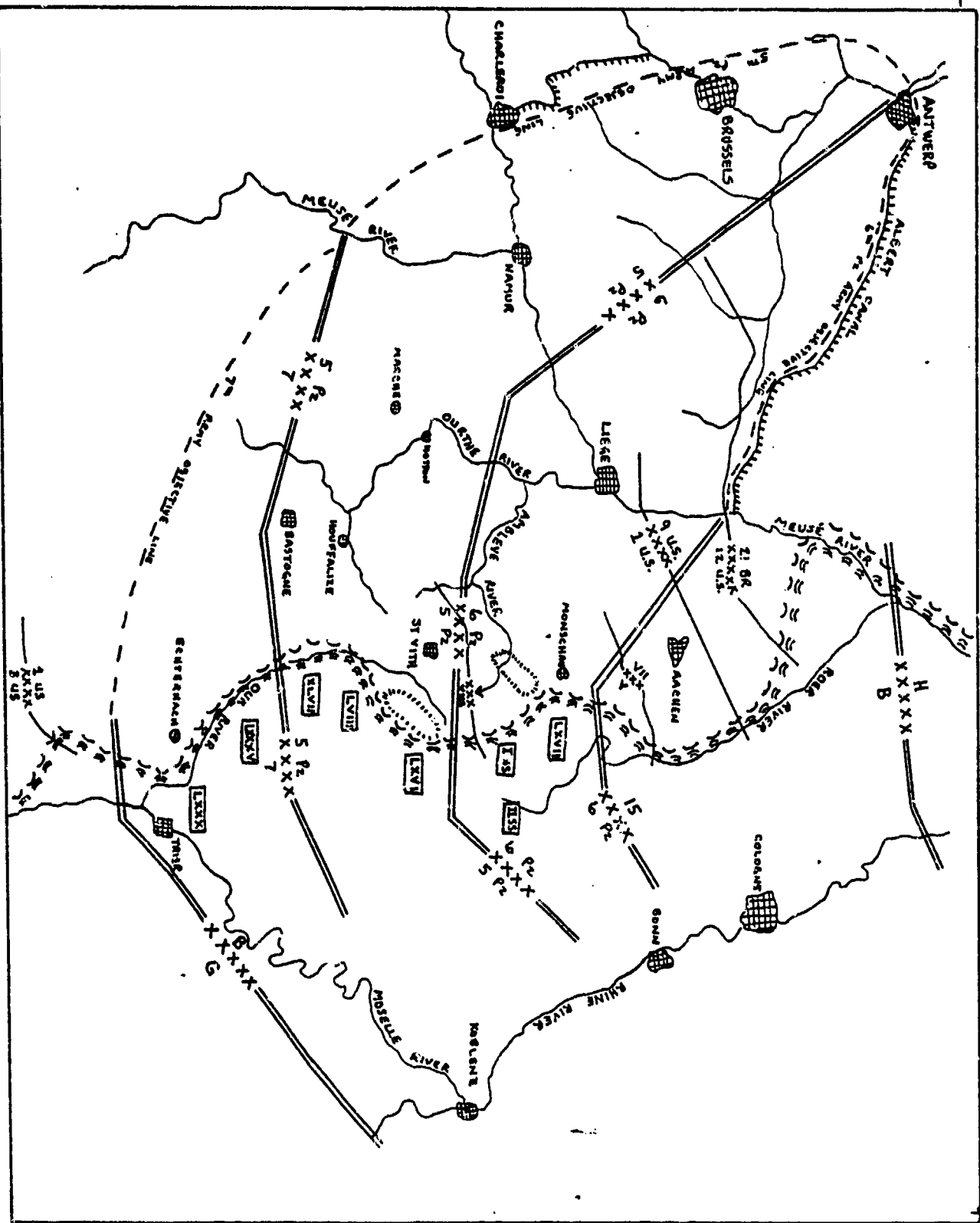
MAP ONE

STRATEGIC SITUATION 1944



MAP TWO

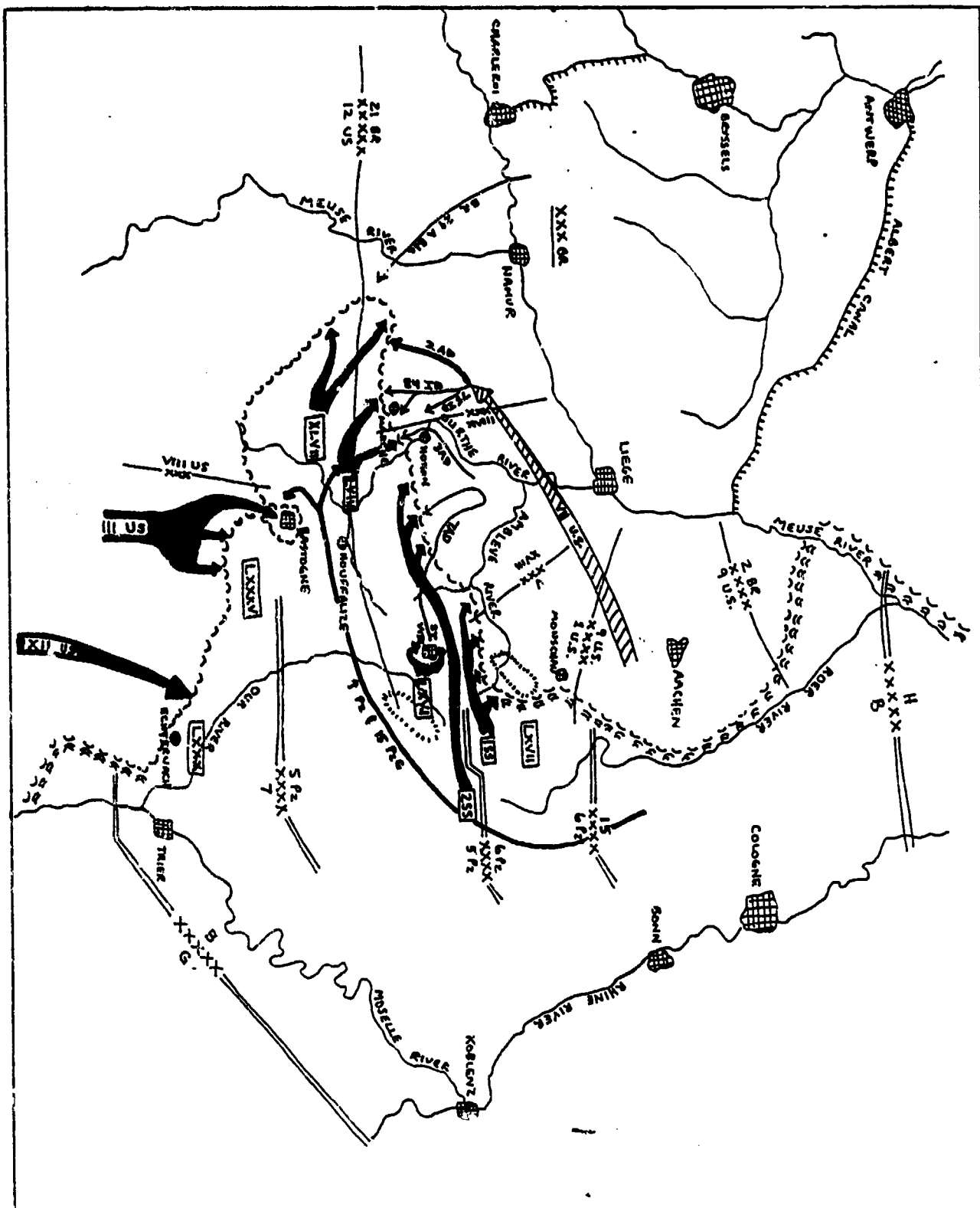
POSSIBLE GERMAN PLANS



MAP THREE

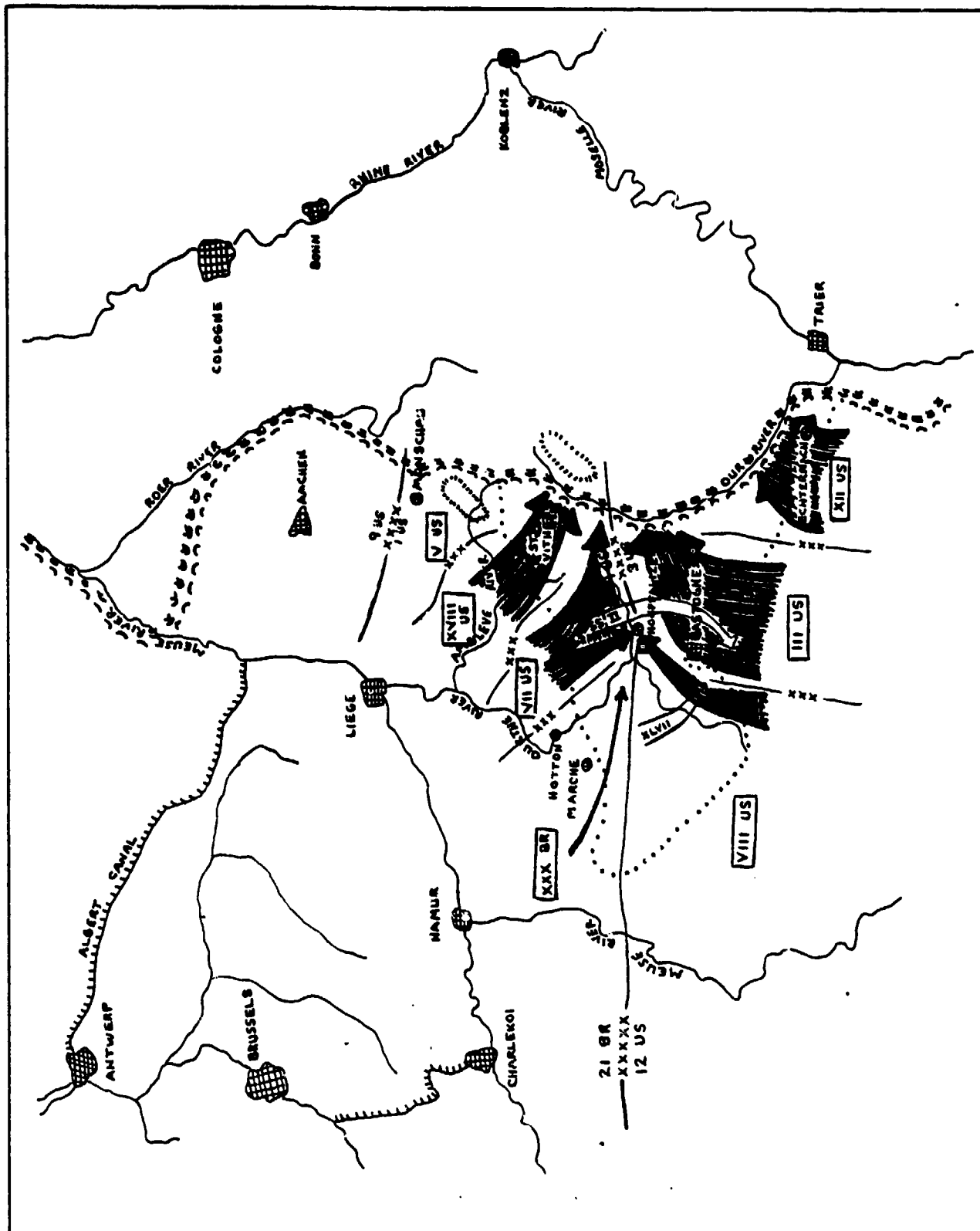
FINAL GERMAN PLAN

OPERATIONS 16-20 DEC 44



MAP FIVE

OPERATIONS 21-27 DEC 44



MAP SIX

OPERATIONS 28 DEC 44-28 JAN 45

BIBLIOGRAPHY

Books

- Cole, Hugh M., United States Army in World War II. The European Theater of Operations: Ardennes: Battle of the Bulge. Office of the Chief of Military History, U.S. Army, Washington, D. C., 1965.
- Collins, J. Lawton, Lightening Joe. An Autobiography. Louisiana State University Press, Baton Rouge and London, 1979.
- Draper, Lt. Theodore, The 84th Infantry Division in the Battle of Germany, November 1944 to May 1945. Viking Press, New York, 1946.
- Dyer, LTC George. XII Corps: Spearhead of Patton's Third Army. XII Corps History Association, 1947.
- Eisenhower, John S. D. The Bitter Woods. Putnam's, New York, 1969.
- Freidin, Seymour and Richardson, William. The Fatal Decisions. William Sloane Associates, New York, 1956.
- Galland, Adolph, The First and Last: The Rise and Fall of the German Fighter Forces, 1938 - 1945, Translated by Mervyn Savill. Holt Publishing Company, New York, 1954.
- Giles, Janice. The Damned Engineers. Historical Division, Office of Administrative Services, Office of the Chief of Engineers, Washington, D.C., 1985. Originally published by Houghton Mifflin Co in 1970.
- Harmon, MG E. N., Mac Kaye, Milton, and Mac Kaye, Ross William, Combat Commander. Autobiography of a Soldier. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1970.
- Houston, Donald E., Hell on Wheels: The 2nd Armored Division. Presidio Press, San Rafael, Calif., 1976.
- Humble, Richard, Hitler's Generals. Doubleday and Co., 1974.
- Liddell-Hart, H., The German Generals Talk. William Morrow, London, 1948.
- Manteuffel, Hasso E., Alternative to Armageddon. Rutgers Press, 1970.

MacDonald, Charles B., The Battle of the Bulge. Weidenfeld and Nicolson, London, 1984. Published in the U.S. as A Time for Trumpets.

Mellenthin, Friedrich Wilhelm von, Panzer Battles: A Study of the Employment of Armor in the Second World War, Edited by LCF Turner, Translated by H. Betzler. Cassell, London, 1955.

Merriam, Robert E., Dark December. Ziff-Davis Publishing Co., Chicago, 1947.

Pallud, Jean Paul. Battle of the Bulge: Then and Now. Battle of Britain Prints International Limited, London, 1984.

Price, Frank J. Troy H. Middleton: A Biography. Louisiana State University Press, Baton Rouge.

Stein, George H., The Waffen SS: Hitler's Elite Guard at War, 1939 - 1945. Cornell University Press, Ithaca, New York, 1984.

Toland, John, Battle - The Story of the Bulge. Random House, New York, 1959.

Weigley, Russell F., Eisenhower's Lieutenants: The Campaign of France and Germany, 1944 - 45. Indiana University Press, Bloomington, 1981.

Other Sources

Green, Maj. William J.L., "Contact at Houffalize", Armored Cavalry Journal, May/June 1949, pp. 36-45.

Morley, Kievit, et al, "Analysis of the VII (US) Corps campaign in the Ardennes Region 21 December 1944 to 23 January 1945", unpublished Staff Battle Analysis, Staff Group 22B, USACGSC, Ft Leavenworth, KS, 1986.

"Why Von Rundstadt's Panzers Stalled," The Quartermaster Review, #37, July-August, 1957, pp.4-5.

Armor at Bastogne, Student Research Report, U.S. Armor School, May 1949.

Armor Under Adverse Conditions, 2d and 3d Armored Divisions in the Ardennes, Student Research Report, U.S. Armor School, January 1949.

Ardennes, 1944, the Defensive Battles, Dale R. Nelson, MMAS Thesis, Command and General Staff College, Fort Leavenworth, KS

ETO: Log Support of the Armies, Volume II, p 165.

First Army Combat Operations, Europe 1944-45, 18 Nov 1946.

Mission Accomplished, the Story of the Campaign of the VII
Corps, U.S. Army in the War Against Germany. J.J.
Weber Publishing Co., Leipzig, GE, 1945.

The General Board, U.S. Forces, European Theater, Study #100,
Chapters 7 and 8.

U.S. Army 3rd Armored Division, Spearhead in the West, 1941 -
45, U.S. Army Publication, 1945.